**AP Biology Taxonomy, Systematics, Phylogeny (Chapter 19 Outline)**

*Vocabulary*: Define in your own words

Chordates-

Cladistics-

Cladogram-

Derived trait-

Homology-

Ingroup-

Lineage-

Molecular Clock-

Outgroup-

Parsimony-

Phylogeny-

Systematics-

Taxonomy-

**Respond to the following questions/prompts:**

Explain the difference between taxonomy, classification, and systematics in your own words. (3 pts)

Who was Carlos Linnaeus and how was his taxonomic classification system different than Aristotle's system? Explain. (2 pts)

Explain why the grouping together of bats and birds based on having wings does not represent a natural group. Offer an example of two different species that belong to a natural group. (3 pt)

Describe two unique characteristics for each of the three domains of life. Be specific in your discussion. (6 pts)

Describe the types of traits that are used to construct a phylogeny (there are three major types of traits used to construct/trace a phylogeny). Also, include a discussion of how ancestral and derived traits relate to phylogenies. (3 pts)

***ABOUT THE READING:***

Write three things that you learned about Phylogenies, Systematics, & Taxonomy*:*

*Make sure to write a full sentence.*

*Example: I learned that a phylogenetic tree that has the least amount of evolutionary changes is most likely the best idea of evolutionary history according to parsimony.*

*1.*

*2.*

*3.*